



# Study effectiveness Sleep hygiene training on Staff working on the events work turns or rotating work turns Parvadeh Tabas coal companies in 2013

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## ABSTRACT

**Objective:** Getting disturbed sleep, of the most work turns problems that can be physical and psychological consequences for the health of more, they have sought. Also, the ability and the performance of their daily care and acceptance of liability will reduce job. **Methodology:** this half of the mode of experimental data with pretest and post test control group and two 15-Member group that had a prominent sleep disorder, was implemented. In this study, 18 questionnaire questionnaire quality of sleep (PSQI) was used and the working staff of the events. After completing the questionnaire and sleep and health education information, then run the test by USING SPSS software and with the help of statistical analysis tests were. **Results:** The results showed that significant differences in test scores, sleep quality, occupational accidents in this group compared to the control group, there have been ( $P < 0.0001$ ). **Conclusion:** Experimental studies in the past several years indicates that this is the point of the bad quality of sleep and sleep hygiene, a lack of respect is an important factor influencing occupational accidents and to the organization. With better quality of sleep, such as increasing the positive changes the focus and reduce accidents and tend to have a better quality of work can be produced in person.

## 1. Introduction

Accidents due to sleepiness in night hours to be worked in the coal. and having the work turns work turns can cause sleep disturbances to be workers. (Monaneh, 1992).

Relative deprivation of sleep and chronic power problems can reduce complex data and thus increases the work accidents in the workshops. Out learning and techniques as well as up to 0.05 the effect of sleep deprivation from lower elevations.

In a study in 1998 by Taffinder was clear colleagues patrol and insomnia can be negative effects on the health status of patients and job scope and its exclusion from the causes of depression, decreased immune function, and heart disease are people (Taffinder, 1998).

The results of several studies on the negative effects of chronic sleep deprivation caused by relative and shows that less sleep of  $\approx 6$  hours at night can lead to dysfunction (Driver, 1994). This deterioration in the performance of the people who have chronic sleep deprivation are relative and they are permanent process for cumulative increases (Mauri, 1990).

Rate of serious accidents mainly in night work turns (early morning hours) due to fatigue and sleepiness to happen happens, and in time the replacement nobtkari has been reported. This asibeha due to lack of sleep disorders, inadequate compliance and social factors is (Chobineh, 2005).

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### **1.1 The aim of research**

To determine the effectiveness of health education in reducing sleep working coal mines work turns staff incidents peaks.

### **1.2 Research hypothesis**

Sleep health education on improving sleep quality, reduce coal mine accidents work turns staff work peaks is effective.

### **1.3 Working events**

Events that cause it to perform during insured events and falls on the basis of the definition of accident to one of the following occurs or causes to the work by: work place joined in the insured or its affiliates or omohaoth companies have been joined in the task as a duty officer outside the shop- obergshst in ordinary insured between joined went home work place a visit to the clinic or hospital for joined rehabilitation therapy treatments in action to save their other insurance and assistance (Gary, 2000).

### **1.4 Career events**

Occupational injuries involve damage is the effect of the work accidents and occupational diseases are also created.

Work accidents are accidents, which are created in connection with the work and may cause death, illness or injury are personnel.

The events are events that commute commuter route from home to work and vice versa to occur and may cause the death or wounding are personnel.

Occupational injuries and damage caused by disasters arising from arise and work leads to death, illness or injury to personnel.

In September 1997 the European occupational accident statistics and Committee on the definition of occupational accidents in the following about unwanted occurrence data provided: at work or in work hours that make physical or mental injuries and severe poisoning include intentional acts and other people as well, but traffic accidents where make travelling on the route of this definition are excluded (Derek, 1980).

Joan (2002) a study to evaluate the mental health, and occupational accidents among working work turns 2407 nurse at 8 General Hospital in Japan in September 2003 did. In this study, a questionnaire for mental health, GHQ-12 nurses had been used. Occupational accidents in four group mistake in prescribed medication incorrect usage of medical equipment and patient identification errors in damage caused by needles was investigated. 8.69% of Nurses who worked as work turns in terms of mental health were in undesirable situation, while Nurses did not work turns that was 55.6% of the difference was statistically significant between medical errors and mistakes and those who are weak in terms of mental health status and had irregular work work turns with the night work turns and age there was a significant relationship. In this research proposal is to improve the mental health of nurses may be a program compatibility with stress as a strategy is needed. The first step is to determine and prevent medical errors and mistakes in health reform among nurses and their job is (Clayton, 1998).

The variable is not certain what events have a questionnaire. The required information in the field of the information contained in the file before the test to test in both test and control has occurred, was extracted (Cho et al., 2006).

## **2. Materials and methods**

### **2.1 The research method**

The study of experimental data in terms of how the half with pretest and post test and control group, respectively in terms of the objective applied and will be implemented for the field.

### **2.2 Statistical Society**

The statistical population consists of all the employees of the company is the staff fully Tabas, based on the quality of sleep questionnaire (PSQI) were diagnosed with sleep disorders.

### **2.3 Sample and sampling method**

Method of sampling in this study was randomly included 30 people who were in the group test (the sleep health education staff has a sleep disorder) as well as in the control group  $n = 15$  and 15 people were to be equal.

### **2.4 The research instrument**

#### **2.4.1 Demographic characteristics questionnaire**

This has been a researcher and based on demographic data including age, height, weight, number of children, education, service record and marital status was reviewed.

#### **2.4.2 Questionnaire quality of sleep**

This a questionnaire to evaluate the quality of sleep during the past one month and includes 18 phrase. A number of studies of the validity and reliability of the questionnaire have shown above. As is this a questionnaire, bad quality of sleep are distinct from sleeping well. Each of the seven branches of the scale reliability and validity can be about 83% and 36% would have had (Chang, 2011).

## 2.5 Method

In this study, after diagnosis, diagnosis of sleep disorder with 30 employees and were replaced in both groups. Then the crash, one of the groups to the group that the health education group download sleep doesn't receive any training were assignment. Then from the control group and the staff was invited to participate in the process of therapy, in General, the relationships were found. In the first session, while the expression of research objectives, research tools to employees as it was before the test to answer. Then the staff of the group for 5 sessions and sleep health program 1 session per week and were under the educational intervention, whereas the control group employees did not receive any educational and research tool again after the end of meetings as the test were given to employees of both groups (Arenas and Lavaderos, 2009).

**Table 1. sleep health education sessions**

Sleep health education program	The number of sessions	The structure and content of the meetings of the	The process of change
	first meeting	Provide a description in the field of sleep Physiology and sleep-affecting factors	Increased awareness
	second session	Characteristics of sleep environment suitability	Re-evaluate yourself and the environment
	Session III	Practicing relaxation (Relaxation) to improve the quality of sleep	Focus Dispel the tension in muscles
	The fourth meeting	Mental imagery exercises for improving quality of sleep	Reform and improve the quality of sleep
	Fifth session	An overview of past meetings Wrap Helping participants to akhttam training Run the following test	

## 2.6 Data analysis methods

In this study, data analysis of the Average test, such as descriptive statistics, frequency, percentage, and hit the charts, and the single test, Covariance analysis was inferential analysis of covariance test some template was used by SPSS software (Brooking, 1996).

## 2.7 Results of inferential statistics

In terms of dependent variables on the surface there is a significant difference between spouses, so the hypothesis can be confirmed. On this basis, it can be said that at least in one of the dependent variable (occupational accidents and sleep quality) between the two groups, there is a significant difference. For understanding these differences, the analysis of covariance was conducted in the context of a changing Mancova that its results, Effect of the size of the coefficient indicates that 83% of the difference between the two groups is related to the experimental intervention. Be a test against a 0.97.

Several experimental studies have shown that not having the desired quality and quantity of sleep and disability program for employees is compatible with work turns can lead to loss of mental and physical welfare, and safety of undesirable consequences of the creation of this performance. In work turns, the sleep deprivation and the lack of compliance with the biological rhythm of the physical performance led to the injury.

**Table 2. results of analysis of covariance test a couple of mtghiri on average sleep quality and test scores following the events of the two groups of employees job testing and control**

The source of the variance	Test name	The amount	df Hypothesis	df Error	F	Significant level	Effect size (Eta)	Observed power
Group	The effect of pilaiy	0.830	3	23	37.374	0.0001	0.83	0.99
	Wilks Lamboda	0.17	3	23	37.374	0.0001	0.83	0.99
	Hetling effect	4.875	3	23	37.374	0.0001	0.83	0.99
	Most roots on the great	4.875	3	23	37.374	0.0001	0.83	0.99

**Table 3. test results of the normal assumption in Wilk – Schapiro Test, being sleep quality score distribution**

Wilk – Schapiro Test					
Variable	Step	Index	Statistics	DF	Significant level
Quality of sleep	Pre test	Experience Group	0.967	15	0.815
	Post test		0.944	15	0.431

	Pre test	Control Group	0.938	15	0.358
	Post test		0.868	15	0.301

Before using ANCOVA analysis, assumptions that were used. As the test results in the above table for the Wilk-Shapiro shows the distribution of scores in the community have been normal the default being the normal scores confirmed ( $P > 0.05$ ).

### 3. Discussion and results

#### 3.1 Hypothesis

Sleep health education reduces business events can be.

In order to evaluate the second hypothesis of score study participants in the job file, and then follow the steps in the test events of the test were included in the statistical analysis of the results is presented in the tables below it. For the evaluation of this Covariance analysis test a test variable was used.

**Table 4. review and variance hemotegintytest and control groups in the Levine pretest and post test dependent variable job events**

Levene's Test of Equality of Error Variances			
F	DF1	DF2	Significant level
0.675	1	28	0.516

As can be seen in table-top test dependent variable job events in Levine 0.678 is not significant. So the variance of the two dependent variables in the test group and control occupational accidents do not result in significant hemoteginty variances can be verified, then in this case, the variance are equal and the reliability of the results confirms the next. For the study of scientific terms and Covariance analysis test mfrwadh a template is provided.

**Table 5. results of analysis of covariance test a few mtghiri on the test score average occupational accidents of employees in two groups of test and control**

The source of the variance	Test name	The amount	df Hypothesis	df Error	F	Significant level	Effect size (Eta)	Observed power
The main effect of occupational accidents	The effect of pilaiy	0.682	3	23	16.449	0.0001	0.862	0.96
	Wilks Lamboda	0.318	3	23	16.449	*/***	0.862	0.96
	Hetling effect	2.146	3	23	16.449	*/***	0.862	0.96
	Most roots on the great	2.146	3	23	16.449	*/***	0.862	0.96

In the table above the results of analysis of variance test chndmetghiri Wilks lamboday pilaiy, effect, effect on root and most big hetling for comparison of occupational accidents shall be based on the variable groups. Based on the information in table 4-10 can be said that the groups have different career in the events with each other. I.e. at least between one of the test (pre-test and post-test) occupational accidents in experimental and control groups, there is a difference. It is a reminder that being a significant ANOVA test does not show a few mtghiri that between which the test (pre-test and post-test) in the experimental and control group, there is a difference (Aaron, 2000).

**Table 6. results of the analysis of covariance of a template in the text Mancova on the average test score following the events of the control group test subjects and career**

Variable	The source of the variance	SS	DF	MS	F	Significant level	Effect size )Eta(	Observed power
Career events	Pre test	10.573	1	10.573	17.033	0.0001	0.837	0.99
	Group	15.215	1	15.215	24.512	0.0001	0.746	0.99
	Error	16.760	27	0.621	-	-	-	-
	Total	82	30	-	-	-	-	-

As the table shows, between subjects test and control groups in terms of occupational accidents in the p variables there is a significant difference. Effect of the size of the coefficient indicates that 75% of the difference between the two groups is related to the cloud and be equal to 0.99 and test.

Among a score of pretest and post test experimental difference was there, these results show that health education in occupational accidents of employees has been effective and reduce occupational accidents has been.

#### 4. Conclusion

Based on the results achieved and verified the hypothesis of such research concludes that health education in occupational accidents of employees has been effective and reduce occupational accidents is ( $P < 0.001$ ).

Experimental studies in the past several years indicates that this is the point of the bad quality of sleep and sleep hygiene, a lack of respect is an important factor influencing occupational accidents and to the organization. With better quality of sleep, such as increasing the positive changes the focus and reduce accidents and tend to have a better quality of work can be produced in person. present results of research Taffinder (1998) research results of and is consistent with the 2004 Suzuki; the researchers in their research concluded that the quantity and quality of sleep in a person's life events have been transition effects. Short sleep duration and prevalence is more than bad quality of insomnia and sleep between work turns attention to serious farmers, sleep disorders, especially among the work turns is surprising, remember that this would lead to an increase of occupational accidents has been.

Investigation has shown that low-quality sleep caused sleepless and reduce accidents and occupational injuries can be. In a survey of workers who turned out to be a severe drowsiness during the day had more to do with accidents, complaints and, in any event, the number of patient days were more.

According to the findings of the study, the appropriate and efficient management and careful planning working work turns to reduce coal company work sleep disorders staff turn Tabas is essential. Improve the quality of public health staff can sleep and allow upgrades and reduce the job events have.

#### 4.1 Suggestions

Because of the prevalence of sleep disorders among workers in work turns are relatively high, therefore, counselors, doctors and health professionals must be more awareness that administrators about this problem consideration and the timely diagnosis of sleep disorders and the application of effective techniques for the treatment of it may be a person of mental disorders and work round to reduce accidents.

The consultants recommended the Sleep hygiene principles, in the form of posters or lectures to put their family.

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